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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,276	04/25/2006	Takayuki Watanabe	205700204328US0	2868

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EXAMINER

CHEN, VIVIAN

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,276	Applicant(s) WATANABE, TAKAYUKI	
	Examiner Vivian Chen	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The rejections under 35 U.S.C. 112, second paragraph, in the previous Office Action have been withdrawn in view of the Amendment filed 8/12/2008.

Claim Rejections - 35 USC § 103

2. Claims 1-4, 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over:
JP 10-193494 (JP '494),
in view of ROSENBAUM ET AL (US 6,815,079).

JP '494 discloses a reflective multilayer film comprising a base layer, a metal layer, and a surface layer. The base layer is a voided white film comprising a polymer and a white pigment (e.g., titanium oxide, etc.), wherein the film has a light transmittance of less than 50%. The metal layer comprises silver or silver alloy, with a typical thickness of 10-200 nm. The film is suitable for use in LCD devices. (entire document, e.g., paragraphs 3-5, 8, etc.)

ROSENBAUM ET AL discloses that it is well known in the art to form reflective voided white films from a composition comprising primarily polylactide resins and a white pigment in typical amounts of 1-25 wt%, wherein the film has a typical longitudinal stretch ratio of 1.5-8 and a transverse stretch ratio of 3-10, in order to form economical, environmentally friendly white films with improved orientation characteristics. The film is suitable for metallization. Functional coatings (e.g., adhesion-promoting coatings, etc.) can be applied to the film. The reference further discloses that it is well known in the art to incorporate known additives (e.g.,

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stabilizers, etc.) in said white films. (line 10-14, 27-35, col. 1; line 42-68, col. 2; line 19-25, 44-55, col. 4; line 7-16, 50-63, col. 5; line 1-15, col. 6)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a known environmentally friendly white film as the base layer of the reflective film of JP '494 in order to form useful reflective laminates. It also would have been obvious to adjust the amount of voiding in the base film (claim 1) to optimize the optical and mechanical properties for specific applications. One of ordinary skill in the art would have used conventional functional layers (e.g., adhesion-promoting layers) (claim 2-3) to improve the adherence between various layers of the laminate. It would have been obvious to incorporate effective amounts of known stabilizing additives (claim 7, 9) in order to improve the stability and maintain performance during usage of the laminate.

Response to Arguments

1. Applicant's arguments filed 8/12/2008 have been fully considered but they are not persuasive.

(A) Applicant argues that JP '494 fails to teach or disclose the claimed invention because the reference fails to explicitly disclose the use of aliphatic polyester film layers and because the reference requires as "the crux of its inventive step" the use of polyethylene terephthalate (PET) films. However, contrary to Applicant's assertions that JP '494 requires the use of PET, the reference, while providing some illustrative examples, explicitly states that that the type of base film is not particularly limited (JP '494, paragraph 5). Furthermore, the absence of specific

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examples utilizing aliphatic polyesters in JP '494 does not constitute a clear teaching away from the use of aliphatic polyesters as a base layer material.

MPEP 2123 [R-5] Rejection Over Prior Art's Broad Disclosure Instead of Preferred Embodiments

I. PATENTS ARE RELEVANT AS PRIOR ART FOR ALL THEY CONTAIN

"The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. Merck & Co. v. Biocraft Laboratories, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also > Upsher-Smith Labs. v. PamLab, LLC, 412 F.3d 1319, 1323, 75 USPQ2d 1213, 1215 (Fed. Cir. 2005) (reference disclosing optional inclusion of a particular component teaches compositions that both do and do not contain that component); < Celeritas Technologies Ltd. v. Rockwell International Corp., 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998) (The court held that the prior art anticipated the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed."). > See also MPEP § 2131.05 and § 2145, subsection X.D., which discuss prior art that teaches away from the claimed invention in the context of anticipation and obviousness, respectively.<

II. NONPREFERRED AND ALTERNATIVE EMBODIMENTS CONSTITUTE PRIOR ART

Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) (The invention was directed to an epoxy impregnated fiber-reinforced printed circuit material. The applied prior art reference taught a printed circuit material similar to that of the claims but impregnated with polyester-imide resin instead of epoxy. The reference, however, disclosed that epoxy was known for this use, but that epoxy impregnated circuit boards have "relatively acceptable dimensional stability" and "some degree of flexibility," but are inferior to circuit boards impregnated with polyester-imide resins. The court upheld the rejection concluding that applicant's argument that the reference teaches away from using epoxy was insufficient to overcome the rejection since "Gurley asserted no discovery beyond what was known in the art." 27 F.3d at 554, 31 USPQ2d at 1132.). Furthermore, "[t]he prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Therefore, one of ordinary skill in the art would reasonably believe that other suitable types of film materials may be used as the base film of JP '494 as long as such materials provide the

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desired optical characteristics, especially when said other materials provide additional or further beneficial advantages.

(B) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the absence of layers containing COC, the presence of layers containing 100 wt% polylactide polymer, the presence of certain reflectance properties over time and/or after a specified degree of irradiation, etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(C) Applicant argues that the films of JP '494 and ROSENBAUM do not have the specified reflectance properties over the recited wavelength range of 420-700 nm after exposure to UV radiation as recited in the claims. However, the claims do not specify what wavelength or duration constitutes "irradiated by". The term "irradiated" can be reasonably interpreted as referring to any exposure to any sort of radiation for any duration; "irradiate" can be also reasonably interpreted as generally referring to any sort of illumination or exposure to light, again, without specificity as to duration and wavelength.

MPEP 2111 [R-5] Claim Interpretation;

Broadest Reasonable Interpretation

CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." >The Federal Circuit's en banc decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard: The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

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Therefore, in lieu of any explicit definitions in the specification, limitations in the claims, and/or other evidence to the contrary, the phrase "an average reflectance of 90% or more in a wavelength region of 420 nm to 700 nm when irradiated with light" as recited in the claims is deemed to fully met by a film which is capable of displaying the stated average reflectance in the stated wavelength range upon any exposure to light, irrespective of intensity or duration.

Applicant has not provided any probative evidence that the films of JP '494 or ROSENBAUM are not capable of displaying such reflectance properties at any point in time, especially when it is within the scope of one of ordinary skill in the art to: (1) adjust the reflectance properties of the film by selecting an effective amount of known pigment(s), whitening agents, and/or opacifying agents; and (2) mitigate well known environmental effects (e.g., hazing, yellowing, etc.) with the use of suitable additives (e.g., UV stabilizers, UV absorbers, thermal or hydrolysis stabilizers, etc.).

(D) Applicant argues that there is no motivation to combine JP '494 and ROSENBAUM because JP '494 requires the use of PET base layers while ROSENBAUM requires the presence of COC-containing layers. However, as previously discussed, JP '494 does not preclude the use of other materials besides PET. Furthermore, neither JP '494 nor the present claims in any way preclude or prohibit the presence of COC in the aliphatic polyester layer. JP '494 discloses that a variety of materials can be used as the base layer, while ROSENBAUM disclose a highly reflective material with desirable processing characteristics (e.g., with respect to orientation, etc.) and has the further benefit of being an environmentally friendly material made from readily renewable raw products.

(E) Applicant argues that the specification provides a showing of criticality or unexpected results from the claimed aliphatic polyesters in comparison to PET. However, the showings in the specification are not commensurate in scope with the present claims. While the Examples in the specification indicate that a base layer comprising a specific polylactide acid resin and containing a specific particle content has superior performance after exposure to UV irradiation for 1000 hours, compared to PET base layers, any showings provided by the specification are not commensurate in scope with the present claims (e.g., the composition of the base layer, the type of aliphatic polyester, the amount and size of particles, etc.)

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 21, 2008

/Vivian Chen/

Primary Examiner, Art Unit 1794